

SUPPLEMENTARY MATERIALS

Exploring the vertical profile of atmospheric organic aerosol: comparing 17 aircraft field campaigns with a global model

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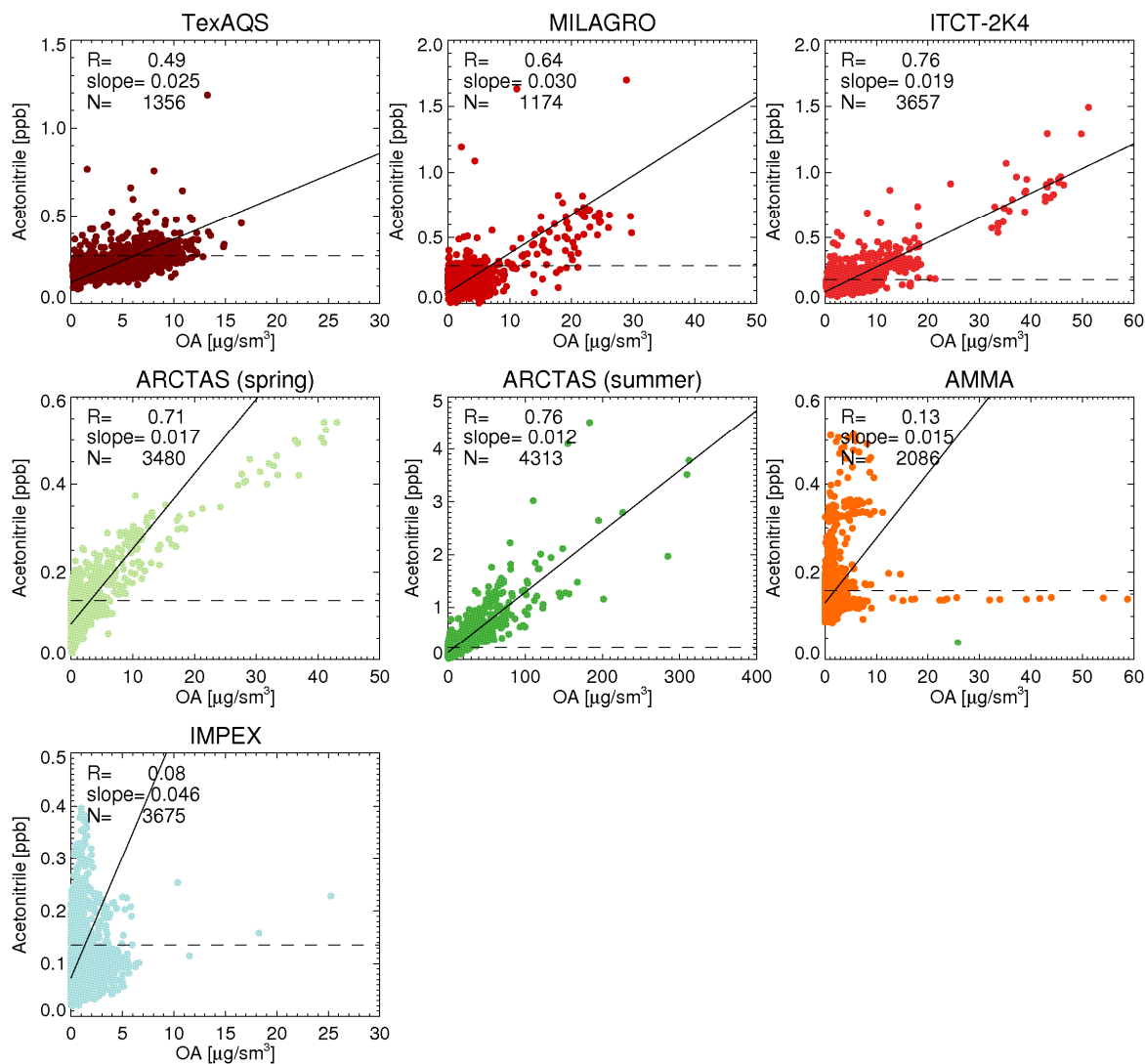


Figure S1: Scatter plot of observed acetonitrile and OA concentrations for seven campaigns. Correlation coefficients and slopes from a reduced-major axes fit shown in inset, line of best fit shown in black. 80th percentile acetonitrile concentrations for each campaign are indicated with a dashed line.

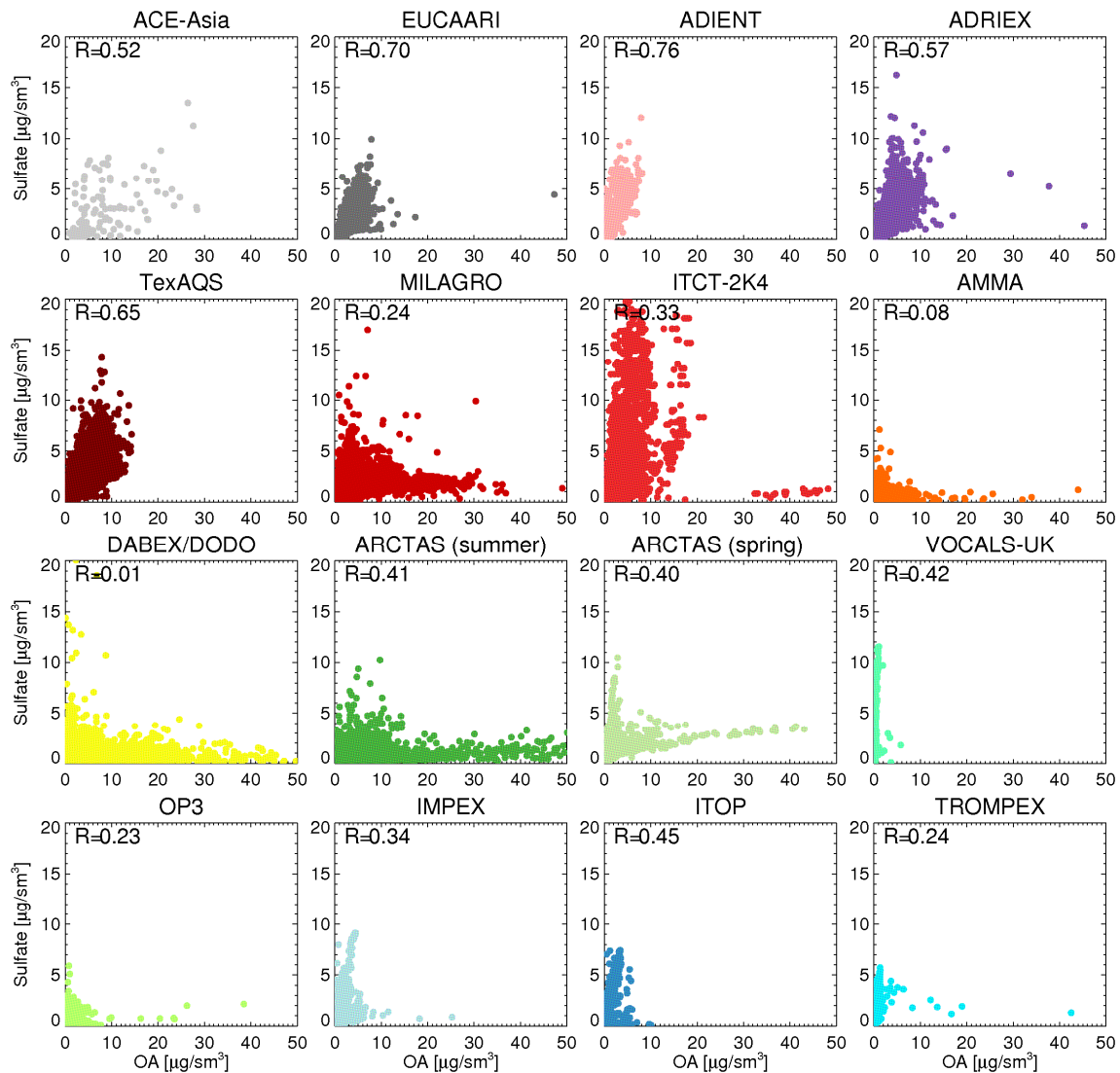


Figure S2: Scatter plot of observed organic aerosol (OA) to sulfate concentrations for 17 aircraft field campaigns. Correlation coefficients (R) shown in inset.

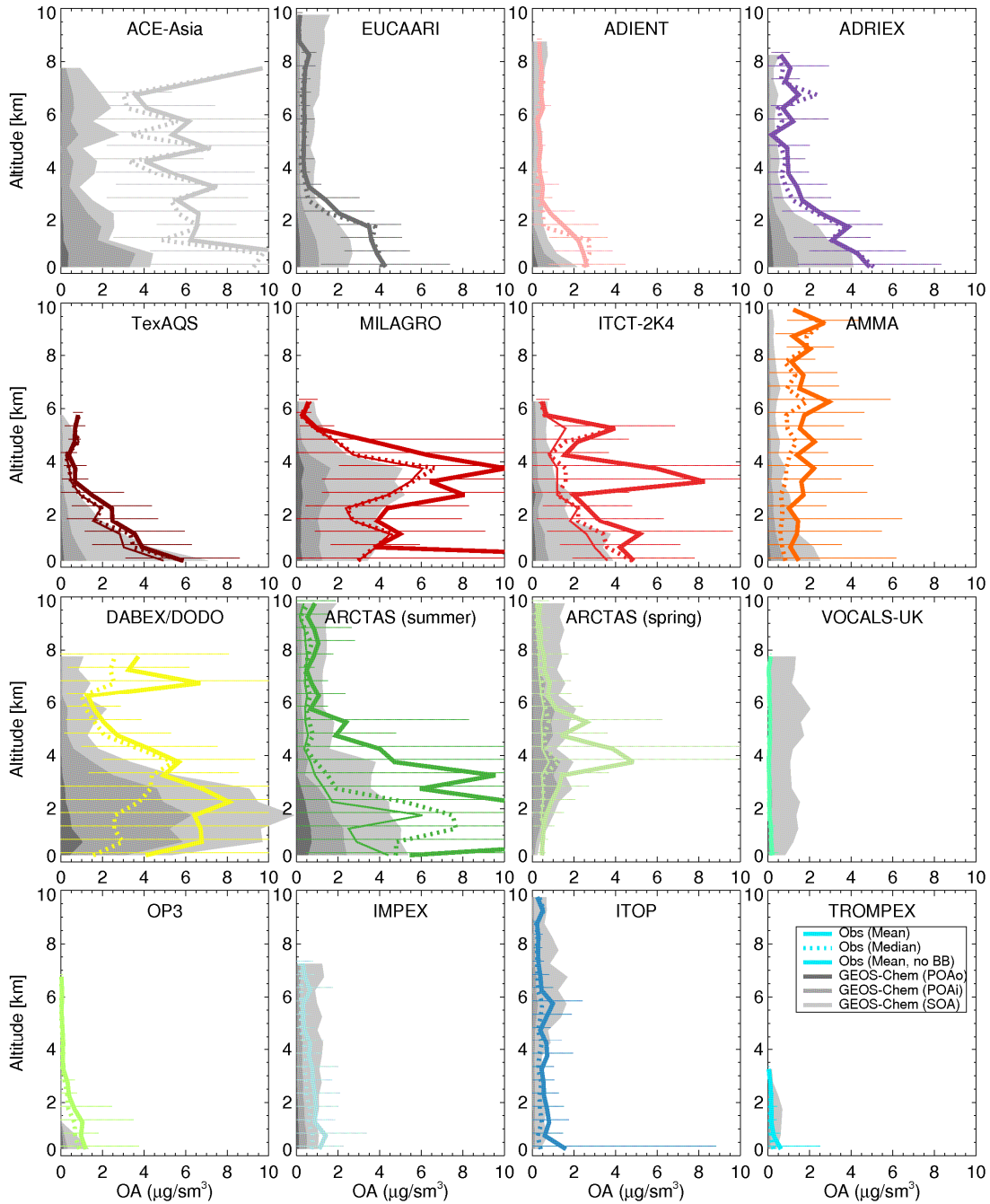


Figure S3: As in Figure 4, mean simulated OA (grey) is compared to observed (color) concentrations for 17 field campaigns, however the model simulation here includes an additional source of biogenic SOA (BSOA) of $\sim 100 \text{ Tgyr}^{-1}$ estimated by scaling simulated BSOA by a factor of 4.